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Art Unit 2834

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Claim Set as Amended

Claims 1-11 (canceled)

12. (Currently Amended) A skeleton type brushless motor comprising:
a rotor having a rotational shaft in a center thereof;
a first stator core including a first semicircular inner profile defined between first and second ends of said first stator core;
a second stator core including a second semicircular inner profile defined between first and second ends of said second stator core, wherein said second stator core is connected to said first stator core such that said second semicircular inner profile faces to said first semicircular inner profile and a first separation space exists gap exist between said first end of said first stator core and said first end of said second stator core, and a second separation space gap exists between said second end of said first stator core and said second end of said second stator core;
a coil winding unit connected to at least one of said first and second stator cores; and
a coil wound on said coil winding unit,
wherein outer profiles of said first stator core and the second stator core near the first separate separation space or the second separate separation |

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space, protrude outwardly away from said rotational shaft as said outer profiles progress toward the end of the first stator core or the second stator core.

13. (Currently Amended) The motor of claim 12, wherein outer profiles of said first stator core and the second stator core near both the first separate separation space and the second separate separation space, protrude outwardly away from said rotational shaft as said outer profiles progress toward each end of the first stator core and the second stator core.

Claim 14 (Canceled)

15. (Previously Presented) The motor of claim 12, further comprising: a first detent part formed in said first semicircular inner profile adjacent to said first end of said first stator core, said first detent part being characterized by a displacement of said inner profile outwardly away from said rotational shaft.

16. (Previously Presented) The motor of claim 15, further comprising: a second detent part formed in said second semicircular inner profile adjacent to said second end of said second stator core, said second detent part being characterized by a displacement of said inner profile outwardly away

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from said rotational shaft.

17. (Previously Presented) The motor of claim 16, wherein said first and second detent parts are symmetrically arranged around a centerline of said rotational shaft.

18. (Currently Amended) The motor of claim 12, wherein said first and second separation spaces gaps are symmetrically arranged around a centerline of said rotational shaft.

19. (Currently Amended) The motor of claim 12, wherein said first stator core is electrically separated from said second stator core at said first separation space gap and said second separation space gap.

20. (Currently Amended) The motor of claim 19, wherein said first stator core is electrically connected to said second stator core at a point remote from said first and second separation spaces gaps.

21. (Previously Presented) The motor of claim 12, wherein said rotor includes a permanent magnet encircling said shaft.

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22. (Currently Amended) The motor of claim 12, wherein a distance of said first separation space gap is equal to a distance of said second separation space gap.

23. (Currently Amended) The motor of claim 12, wherein a distance of said first separation space gap is approximately 0.3 to 1 mm.

24. (Currently Amended) The motor of claim 12 23, wherein a distance of said second separation space gap is approximately 0.3 to 1 mm.

25. (Currently Amended) The motor of claim 12, further comprising:
a sensor for sensing a rotational position of said rotor, wherein said sensor is located approximately 10 to 20 degrees from one of said first and second separation spaces gaps and upstream from said one of said first and second separation spaces gaps, relative to a rotational direction of said rotor.

26. (Previously Presented) The motor of claim 12, further comprising:
a first shaft support part supporting one end of said rotational shaft;
a first nonconductive separation member located between said first shaft support part and said first and second stator cores for receiving a part of the rotor protruded from the stator cores;

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a second shaft support part supporting another end of said rotational shaft; and

a second nonconductive separation member located between said second shaft support part and said first and second stator cores for receiving a part of the rotor protruded from the stator cores.

27. (Currently Amended) The motor of claim 26, further comprising:
a first cover extending from said first separation member toward said first and second stator cores and covering said first separation space gap; and
a second cover extending from said second separation member toward said first and second stator cores and covering said second separation space gap.

28. (Previously Presented) The motor of claim 12, further comprising:
a drive control unit connected to said coil winding, wherein said drive control unit includes an AC capacitor for connection to utility power for decreasing a voltage of the utility power, and a rectification circuit for rectifying the utility power.

29. (Currently Amended) A skeleton type brushless motor comprising:
a rotor having a rotational shaft in a center thereof;

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a first stator core having a first rotor receiving part formed therein for receiving the rotor;

a second stator core having a second rotor receiving part formed therein for receiving the rotor;

first and second separate spaces formed between the first and second stator cores, respectively;

a coil winding unit connected to the first and second stator cores; and a coil wound on the coil winding unit;

wherein one end of the first rotor receiving part near the first separate space and an opposite end of the second rotor receiving part near the second separate space are offset from a vertical center line of the motor, respectively positioned on a vertical center line of the first and second stator cores and rotational shaft.

30. (Previously Presented) The motor of claim 29, further comprising:

a pair of nonconductive separation members each separation member respectively being inserted between the stator cores and one of the shaft support parts and receiving a part of the rotor protruded from the stator cores.

31. (Previously Presented) The motor of claim 30, wherein a cover is formed on one of the separation members for covering the first and second

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separate spaces.

32. (Previously Presented) The motor of claim 29, wherein said first and second stator cores are symmetric with respect to an imaginary symmetry line passing through the rotational shaft, and wherein a sensor for sensing a rotational position of the rotor is positioned around 10-20° from the symmetry line nearer to the coil winding unit in a direction opposite to a rotational direction of the rotor.

33. (Previously Presented) The motor of claim 29, further comprising: a PCB formed with a drive control circuit, and connected to the coil winding unit in a direction of the rotational shaft.

34. (Previously Presented) The motor of claim 33, wherein the PCB includes an AC capacitor connected to utility power for decreasing a voltage of the utility power, and a rectification circuit for rectifying the utility power.

35. (Previously Presented) The motor of claim 29, wherein a pair of detent parts, having larger radius from the rotational shaft than radii of the first and second rotor receiving parts, are formed around each one end of the first and second rotor receiving parts in a rotational direction of the rotational

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shaft, and point symmetric centering on the rotational shaft.

Claim 36 (canceled)

37. (Currently Amended) A skeleton type brushless motor comprising:
a rotor having a rotational shaft in a center thereof;
a first stator core having a first rotor receiving part formed therein for receiving the rotor;
a second stator core having a second rotor receiving part formed therein for receiving the rotor;
first and second gaps formed between the first and second stator cores, respectively;
a coil winding unit connected to the first and second stator cores;
a coil wound on the coil winding unit;
a pair of shaft support parts rotatably supporting the rotational shaft on both sides of the stator cores; and
a pair of nonconductive separation members, said separation members being inserted between and contacting the stator cores and respective ones of the shaft support parts and receiving a part of the rotor protruded from the stator cores.

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38. (Previously Presented) The motor of claim 37, wherein a cover is formed on one of the separation members for covering the first and second gaps.

39. (Previously Presented) The motor of claim 37, wherein said first and second stator cores are symmetric with respect to an imaginary symmetry line passing through the rotational shaft, and a sensor for sensing a rotational position of the rotor is positioned around 10-20° from the symmetry line, nearer to the coil winding unit in a direction opposite to a rotational direction of the rotor.

40. (Previously Presented) The motor of claim 37, further comprising:
a PCB formed with a drive control circuit, and connected to the coil winding unit.

41. (Previously Presented) The motor of claim 40, wherein the PCB includes an AC capacitor for being connected to utility power, and a rectification circuit for rectifying the utility power.

42. (Previously Presented) The motor of claim 40, further comprising:
a PCB cover, connected with the PCB in a length direction of the

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rotational shaft for covering the PCB, wherein a sensor receiving part, for receiving the sensor, is formed in the PCB cover.

43. (Previously Presented) The motor of claim 37, wherein a pair of detent parts, having a larger radius from the rotational shaft than radii of the first and second rotor receiving parts, are formed around one end of each of the first and second rotor receiving parts in a rotational direction of the rotational shaft, and are point symmetric centering on the rotational shaft.

Claims 44-48 (canceled)